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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/802,886 | 03/12/2001 | Yuuichi Hirano | 204612US2 | 5686 |

22850 7590 06/06/2002

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EXAMINER

TRAN, THIEN F

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2811

DATE MAILED: 06/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/802,886

Applicant(s)

HIRANO ET AL.

Examiner

Thien F Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 2-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of claim 1 in Paper No. 7 is acknowledged. The traversal is on the ground(s) that although one step relating to semiconductors is mentioned in the office Action, the specific steps of a material different process are not set forth; and no serious burden in searching and examining all pending claims of the entire application. This is not found persuasive because

a) The proposed process involves more than one step and a person skill in the art can use any known materially different methods to form the first complete isolation insulating film such as selective depositing the first complete isolation insulating film on the substrate at the desired areas then filling the semiconductor layer only in the exposed areas of the substrate; or forming the entire surface of the substrate with the isolation insulating film and patterning to form the first complete isolation insulating film on the substrate and depositing a semiconductor layer on the first complete isolation insulating film and the substrate, then performing chemical mechanical process to planarize the semiconductor layer down to expose the top surface of the first complete isolation insulating film. The processes described above clearly require and use different materials to form the structure recited in the claims.

a) The above two different classifications show the need for two entirely different fields of search.

b) The inventions are in different statutory classes which have different case law basis for examination.

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c) Non-restriction would mean that if one of the inventions were held to be unpatentable, then the other would also be inherently held to be unpatentable. Therefore, restriction is proper since there are apparently two different inventive concepts in making the device and in the device itself.

The requirement is still deemed proper and is therefore made FINAL.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by lida et al. (US 5,747,846).

lida et al. discloses the claimed semiconductor device (Fig. 1) comprising an SOI substrate having a structure in which a semiconductor substrate1, an insulating layer 2 and a semiconductor layer (4, 3, 5) are layered in this order; a partial isolation insulating film (field oxide film 8) formed in a main surface of said semiconductor layer; a first semiconductor element (selection transistor Ts) formed in an element formation region defined by said partial isolation insulating film in said semiconductor layer; an interlayer insulating film 19 formed on said first semiconductor element and said partial isolation

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insulating film; a bit line (53, B1) is at ground potential (ground line) when electron is injected to the floating gate and thereby "1" is written into the cell (col. 5, lines 8-17); and a first complete isolation insulating film (insulator isolating wall 13 and film 8) formed extending from said main surface of said semiconductor layer, reaching an upper surface of said insulating layer 2 below said ground line (53, B1).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thien F Tran whose telephone number is (703) 308-4108. The examiner can normally be reached on 7:00AM - 3:30PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (703) 308-2772. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

tt
June 3, 2002



Thien Tran
Patent Examiner
Technology Center 2800